INTISARI

Hubungan Status Nutrisi dengan Fase Bebas Kejang Pasien Epilepsi Anak Nonsindromik di RSUP Dr. Sardjito

Latar Belakang: Epilepsi merupakan penyakit neurologis kronis yang paling banyak diderita oleh anak. Kejadian remisi atau fase bebas kejang awal diketahui dapat memprediksi luaran jangka panjang pasien epilepsi anak. Studi terdahulu menemukan anak dengan epilepsi cenderung mempunyai status nutrisi yang kurang. Studi pada hewan juga menemukan malnutrisi dapat menurunkan ambang kejang dan memperburuk luaran kejang pada hewan, sedangkan belum ada studi pada manusia yang meneliti hubungan status nutrisi dengan fase bebas kejang. Oleh karena itu, penting dilakukan penelitian hubungan antara status nutrisi dengan fase bebas kejang pada pasien epilepsi anak.

Tujuan: Mengetahui hubungan antara status nutrisi sebelum terapi dengan fase bebas kejang pada pasien epilepsi anak nonsindromik.

Metode: Penelitian kohort retrospektif menggunakan data rekam medis pasien anak dengan epilepsi nonsindromik baru di RSUP Dr. Sardjito tahun 2015. Penelitian melibatkan 70 subjek. Status nutrisi diukur saat pasien pertama kali terdiagnosis. Terdapat 3 indikator status nutrisi, yaitu Z-skor BB/TB atau IMT/U, Z-skor BB/U, dan Z-skor TB/U, ketiganya dibagi menjadi dua kelompok, yaitu Z-skor <-2 dan Z-skor ≥-2. Fase bebas kejang didefinisikan sebagai tidak adanya kejang selama minimal 1 bulan, sedangkan rekurensi didefinisikan sebagai terjadinya kejang berulang setelah fase bebas kejang. Fase bebas kejang terdiri atas 3 indikator, onset bebas kejang yang dibagi menjadi ≤6 bulan dan >6 bulan, durasi bebas kejang yang dibagi menjadi <1 tahun dan ≥1 tahun, dan kejadian rekurensi yang dibagi menjadi ya dan tidak. Analisis statistik hubungan status nutrisi dengan fase bebas kejang dilakukan dengan uji *Chi-square* dengan nilai p<0.05 dianggap bermakna secara statistik.

Hasil: Hampir seluruh subjek (97.1%) mencapai fase bebas kejang ≤ 6 bulan dan 38 (54.3%) anak mengalami rekurensi. Didapatkan 17 (24.3%) subjek *wasted*, 15 (25.4%) subjek *underweight*, dan 23 (32.9%) subjek *stunted*. Dari 55 subjek dengan *follow up* minimal 1 tahun, 30 (54.5%) mengalami fase bebas kejang ≥ 1 tahun. Analisis statistik menunjukkan hubungan yang tidak signifikan antara ketiga indikator status nutrisi dengan fase bebas kejang.

Kesimpulan: Status nutrisi sebelum terapi mungkin tidak berhubungan dengan fase bebas kejang pada pasien epilepsi anak nonsindromik di RSUP Dr. Sardjito.

Kata kunci: epilepsi; anak; status gizi; status nutrisi; Z skor; remisi; bebas kejang; relaps; rekurensi

ABSTRACT

Association of Nutritional Status with Seizure-Free Phase in Children with Nonsyndromic Epilepsy in Dr. Sardjito Hospital

Background: Epilepsy is the most common chronic neurological disease in children. Early remission or seizure-free phase is known to be able to predict long term outcomes of the disease in children. Past studies found that children with epilepsy tend to be in malnutrition. Animal studies also found that malnutrition could lower seizure threshold and worsen the seizure outcome, while there is no study in human that investigate the association between nutritional status and seizure-free phase yet. Thus, it is important to investigate association between nutritional status and seizure-free phase in children with epilepsy.

Objective: To investigate association between pre-treatment nutritional status and seizure-free phase in children with nonsyndromic epilepsy.

Method: A retrospective cohort study was conducted in Dr. Sardjito General Hospital. Of 70 children who were newly-diagnosed nonsyndromic epilepsy in 2015 enrolled. Nutritional status was measured when subjects firstly diagnosed. There were 3 nutritional status indicators: weight/height (for children age 0-5 years) or BMI/age Z-score (for children age >5 years), weight/age Z-score (for children age 0-10 years), and height/age Z-score and all was divided into two groups, Z-score <-2 and Z-score ≥-2. Seizure free phase was defined as no seizure in minimal duration of 1 month, while recurrence was defined as seizures occurred after seizure free phase. Seizure-free phase consists of 3 indicators: onset of seizure free which divided into ≤6 months and >6 months; duration of seizure free that divided into <1 year and ≥1 year; and recurrence of seizure divided into yes or no. Statistical analysis of association between nutritional status and seizure-free phase were conducted using *Chi-square* test, where $p<0.05$ was determined as statistically significant.

Results: Almost all subjects (97.1%) gain seizure free phase in ≤ 6 months and experienced recurrence in 38 (54.3%) of the subjects. Of 17 (24.3%) children were wasted, 15 (25.4%) were underweight, and 23 (32.9%) were stunted. 55 of 70 subjects with minimal follow up of 1 year, 30 (54.5%) had duration of seizure free phase more than 1 year. There were no significant association between all nutritional status indicators and seizure-free phase indicators.

Conclusion: Pre –treatment nutritional status might not be associated with seizure-free phase in children with non-syndromic epilepsy in Dr. Sardjito Hospital

Keywords: epilepsy; child; nutrition; nutritional status; Z score; remission; seizure free; relaps; recurrence